

**UDP Results for the RC Rat-Only Weight Regression Excluding Substances with Specific Mechanisms of Toxicity**

**Starting One Dose Lower Than Estimated LD50**

**5000 mg/kg Upper Limit**

**Results for 46 chemicals for the 3T3 NRU and 47 chemicals for the NHK NRU  
(see notes to Table 6-5 for chemicals excluded).**

**Summary of Animals Used by Cell Type**

Cell	Sigma	Method	Std. Error	Animals	Difference	P-Value*	% Savings
3T3	0.12	Cyto	0.311	7.08	1.08	<b>0.0052</b>	13.3%
		Default	0.249	8.16			
	0.25	Cyto	0.283	7.87	1.14	<b>0.0022</b>	12.7%
		Default	0.244	9.01			
	0.5	Cyto	0.227	8.64	1.16	<b>0.0002</b>	11.8%
		Default	0.203	9.80			
	1.25	Cyto	0.190	9.21	1.15	<b>&lt;.0001</b>	11.1%
		Default	0.164	10.36			
	2	Cyto	0.168	9.33	0.97	<b>&lt;.0001</b>	9.4%
		Default	0.131	10.30			
Average Animal Difference:						1.10	

NHK	0.12	Cyto	0.317	7.15	1.00	<b>0.0093</b>	12.2%
		Default	0.247	8.15			
	0.25	Cyto	0.295	7.93	1.04	<b>0.0045</b>	11.6%
		Default	0.238	8.97			
	0.5	Cyto	0.241	8.73	1.05	<b>0.0005</b>	10.7%
		Default	0.197	9.78			
	1.25	Cyto	0.198	9.29	1.10	<b>&lt;.0001</b>	10.6%
		Default	0.156	10.39			
	2	Cyto	0.178	9.41	0.90	<b>&lt;.0001</b>	8.7%
		Default	0.124	10.31			
Average Animal Difference:						1.02	

**Summary of Animal Deaths by Cell Type**

Cell Type	Sigma	Method	3 Animals at Limit Dose	5 Reversals	Likelihood Ratio	Max Animals	Animals	Died	% Dead
3T3	0.12	Cyto	23.8%	49.4%	24.1%	2.7%	7.08	3.34	47.24%
		Default	23.3%	51.8%	21.3%	3.6%	8.16	3.45	42.34%
	0.25	Cyto	22.9%	29.7%	42.0%	5.3%	7.87	3.66	46.53%
		Default	22.5%	32.0%	38.0%	7.5%	9.01	3.81	42.23%
	0.5	Cyto	20.3%	18.2%	52.4%	9.2%	8.64	4.03	46.59%
		Default	19.7%	19.1%	47.7%	13.6%	9.80	4.18	42.69%
	1.25	Cyto	14.5%	12.9%	59.4%	13.3%	9.21	4.44	48.18%
		Default	13.3%	13.3%	52.9%	20.5%	10.36	4.63	44.70%
	2	Cyto	12.4%	12.0%	61.6%	14.0%	9.33	4.55	48.79%
		Default	10.4%	12.3%	56.8%	20.5%	10.30	4.73	45.91%
NHK	0.12	Cyto	25.3%	48.9%	22.9%	2.8%	7.15	3.29	46.07%
		Default	25.0%	50.8%	20.6%	3.6%	8.15	3.40	41.70%
	0.25	Cyto	24.3%	29.5%	40.8%	5.4%	7.93	3.61	45.55%
		Default	24.0%	31.5%	37.2%	7.4%	8.97	3.73	41.63%
	0.5	Cyto	21.7%	18.1%	50.5%	9.7%	8.73	3.99	45.75%
		Default	21.1%	18.9%	46.8%	13.3%	9.78	4.12	42.09%
	1.25	Cyto	15.3%	12.7%	58.1%	13.9%	9.29	4.41	47.51%
		Default	14.0%	13.2%	52.4%	20.5%	10.39	4.60	44.28%
	2	Cyto	12.5%	12.1%	60.7%	14.8%	9.41	4.55	48.30%
		Default	10.8%	12.3%	56.1%	20.8%	10.31	4.70	45.57%

### Summary of Animals Used by GHS Toxicity Category and Cell Type

Toxcat	Cell	Sigma	Method	Std. Error	Animals	Difference	P-Value*	% Savings
1	3T3	0.12	Cyto	0.668	10.31	0.31	0.4011	2.9%
		0.12	Default	0.475	10.62			
		0.25	Cyto	0.618	10.86	0.36	0.5000	3.2%
		0.25	Default	0.303	11.22			
		0.5	Cyto	0.554	11.26	0.42	0.4501	3.6%
		0.5	Default	0.171	11.68			
		1.25	Cyto	0.499	11.58	0.44	0.4011	3.6%
		1.25	Default	0.123	12.02			
		2	Cyto	0.438	11.39	0.40	0.4011	3.4%
		2	Default	0.129	11.78			
	Average Animal Difference:						0.39	
	NHK	0.12	Cyto	0.446	10.83	-0.18	0.5000	-1.6%
		0.12	Default	0.478	10.66			
		0.25	Cyto	0.384	11.44	-0.34	0.1937	-3.0%
		0.25	Default	0.347	11.10			
		0.5	Cyto	0.319	11.90	-0.35	0.0917	-3.0%
		0.5	Default	0.227	11.55			
		1.25	Cyto	0.300	12.14	-0.18	0.1011	-1.5%
		1.25	Default	0.155	11.95			
		2	Cyto	0.292	11.95	-0.25	0.0917	-2.1%
		2	Default	0.133	11.70			
	Average Animal Difference:						-0.26	
2	3T3	0.12	Cyto	0.594	7.92	0.15	0.1618	1.9%
		0.12	Default	0.249	8.07			
		0.25	Cyto	0.485	8.51	0.07	0.2732	0.9%
		0.25	Default	0.130	8.58			
		0.5	Cyto	0.548	9.03	0.02	0.4196	0.3%
		0.5	Default	0.130	9.05			
		1.25	Cyto	0.490	9.51	-0.03	0.3429	-0.3%
		1.25	Default	0.113	9.49			
		2	Cyto	0.372	9.77	-0.14	0.5000	-1.4%
		2	Default	0.086	9.63			
	Average Animal Difference:						0.02	
	NHK	0.12	Cyto	0.364	7.30	0.89	0.0645	10.9%
		0.12	Default	0.317	8.19			
		0.25	Cyto	0.217	7.88	0.86	<b>0.0464</b>	9.9%
		0.25	Default	0.189	8.74			
		0.5	Cyto	0.278	8.30	0.98	<b>0.0464</b>	10.6%
		0.5	Default	0.253	9.28			
		1.25	Cyto	0.222	8.81	0.93	<b>0.0331</b>	9.6%
		1.25	Default	0.195	9.74			
		2	Cyto	0.149	9.21	0.54	<b>0.0464</b>	5.5%
		2	Default	0.120	9.75			
	Average Animal Difference:						0.84	

### Summary of Animals Used by GHS Toxicity Category and Cell Type

Toxcat	Cell	Sigma	Method	Std. Error	Animals	Difference	P-Value*	% Savings
3	3T3	0.12	Cyto	0.289	6.99	-0.06	0.4688	-0.9%
		0.12	Default	0.306	6.93			
		0.25	Cyto	0.218	7.30	-0.08	0.4688	-1.1%
		0.25	Default	0.251	7.22			
		0.5	Cyto	0.150	7.84	-0.02	0.4688	-0.2%
		0.5	Default	0.183	7.82			
		1.25	Cyto	0.105	8.74	-0.04	0.4688	-0.4%
		1.25	Default	0.098	8.70			
		2	Cyto	0.055	9.21	-0.12	0.1004	-1.3%
		2	Default	0.082	9.09			
	Average Animal Difference:					-0.06		
4	NHK	0.12	Cyto	0.398	7.26	-0.19	0.3483	-2.6%
		0.12	Default	0.343	7.08			
		0.25	Cyto	0.312	7.49	-0.12	0.5000	-1.6%
		0.25	Default	0.285	7.37			
		0.5	Cyto	0.243	8.03	-0.16	0.4073	-2.0%
		0.5	Default	0.195	7.87			
		1.25	Cyto	0.123	8.85	-0.13	0.2932	-1.4%
		1.25	Default	0.129	8.72			
		2	Cyto	0.078	9.21	-0.08	0.2431	-0.9%
		2	Default	0.068	9.13			
	Average Animal Difference:					-0.13		
3	3T3	0.12	Cyto	0.175	6.58	0.73	0.0917	10.0%
		0.12	Default	0.366	7.31			
		0.25	Cyto	0.122	7.31	0.78	0.0917	9.6%
		0.25	Default	0.336	8.08			
		0.5	Cyto	0.056	7.81	1.00	<b>0.0245</b>	11.4%
		0.5	Default	0.352	8.81			
		1.25	Cyto	0.038	8.58	0.75	<b>0.0120</b>	8.0%
		1.25	Default	0.213	9.32			
		2	Cyto	0.064	8.94	0.55	<b>0.0120</b>	5.8%
		2	Default	0.139	9.49			
	Average Animal Difference:					0.76		
4	NHK	0.12	Cyto	0.222	6.61	0.69	0.0917	9.5%
		0.12	Default	0.341	7.31			
		0.25	Cyto	0.140	7.33	0.71	0.0746	8.9%
		0.25	Default	0.320	8.04			
		0.5	Cyto	0.061	7.86	0.90	<b>0.0309</b>	10.3%
		0.5	Default	0.333	8.76			
		1.25	Cyto	0.036	8.59	0.74	<b>0.0074</b>	7.9%
		1.25	Default	0.201	9.34			
		2	Cyto	0.038	9.00	0.49	<b>0.0120</b>	5.1%
		2	Default	0.130	9.48			
	Average Animal Difference:					0.71		

### Summary of Animals Used by GHS Toxicity Category and Cell Type

Toxcat	Cell	Sigma	Method	Std. Error	Animals	Difference	P-Value*	% Savings
5	3T3	0.12	Cyto	0.369	7.19	2.00	<b>0.0038</b>	21.8%
		0.12	Default	0.259	9.18			
		0.25	Cyto	0.326	8.07	2.31	<b>0.0004</b>	22.2%
		0.25	Default	0.129	10.38			
		0.5	Cyto	0.234	8.62	2.22	<b>0.0004</b>	20.5%
		0.5	Default	0.071	10.84			
		1.25	Cyto	0.153	8.76	2.01	<b>0.0004</b>	18.7%
		1.25	Default	0.054	10.77			
		2	Cyto	0.116	8.81	1.60	<b>0.0004</b>	15.3%
		2	Default	0.054	10.41			
	Average Animal Difference:					2.03		
	NHK	0.12	Cyto	0.393	7.41	1.75	<b>0.0051</b>	19.1%
		0.12	Default	0.248	9.15			
		0.25	Cyto	0.325	8.28	2.05	<b>0.0008</b>	19.9%
		0.25	Default	0.126	10.33			
		0.5	Cyto	0.260	8.84	1.98	<b>0.0004</b>	18.3%
		0.5	Default	0.073	10.82			
		1.25	Cyto	0.173	8.90	1.83	<b>0.0004</b>	17.1%
		1.25	Default	0.047	10.73			
		2	Cyto	0.139	8.92	1.44	<b>0.0004</b>	13.9%
		2	Default	0.052	10.36			
	Average Animal Difference:					1.81		
6	3T3	0.12	Cyto	0.462	4.68	2.01	<b>0.0062</b>	30.1%
		0.12	Default	0.371	6.69			
		0.25	Cyto	0.544	6.00	1.92	<b>0.0221</b>	24.3%
		0.25	Default	0.438	7.92			
		0.5	Cyto	0.400	7.71	1.88	<b>0.0038</b>	19.6%
		0.5	Default	0.274	9.59			
		1.25	Cyto	0.281	8.63	2.29	<b>0.0007</b>	21.0%
		1.25	Default	0.060	10.93			
		2	Cyto	0.249	8.59	2.16	<b>0.0007</b>	20.1%
		2	Default	0.037	10.75			
	Average Animal Difference:					2.05		
	NHK	0.12	Cyto	0.439	4.76	1.88	<b>0.0051</b>	28.4%
		0.12	Default	0.345	6.64			
		0.25	Cyto	0.543	5.98	1.84	<b>0.0209</b>	23.5%
		0.25	Default	0.432	7.82			
		0.5	Cyto	0.426	7.75	1.77	<b>0.0059</b>	18.6%
		0.5	Default	0.281	9.52			
		1.25	Cyto	0.281	8.76	2.15	<b>0.0004</b>	19.7%
		1.25	Default	0.042	10.91			
		2	Cyto	0.272	8.77	2.04	<b>0.0004</b>	18.9%
		2	Default	0.029	10.81			
	Average Animal Difference:					1.94		

**Notes:**

\*P-Value is from one-side Wilcoxon Signed Ranked test for difference in animal use between the default and cytotoxicity methods. **Boldfaced** values are significant values at p< 0.05.

Numbers are numbers of animals unless otherwise specified

Sigma - reciprocal of slope

Cyto= using NRU-determined starting dose

Default - using default starting dose of 175 mg/kg